# SCIENCE AND TECHNOLOGY COMMITTEE

First Report

## EFFICIENCY UNIT SCRUTINY OF PUBLIC SECTOR RESEARCH ESTABLISHMENTS

Volume I

Report and Minutes of Proceedings

Ordered by The House of Commons to be printed
16 November 1994

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The Science and Technology Committee is appointed under Standing Order No 130 to examine the expenditure, administration and policy of the Office of Science and Technology and associated public bodies.

The Committee consists of 11 Members. It has a quorum of three. Unless the House otherwise orders, all Members nominated to the Committee continue to be members of it for the remainder of the Parliament.

The Committee has power:

- (a) to send for persons, papers and records, to sit notwithstanding any adjournment of the House, to adjourn from place to place, and to report from time to time;
- (b) to appoint specialist advisers either to supply information which is not readily available or to elucidate matters of complexity within the Committee's order of reference;
- (c) to communicate to any other such committee and to the Committee of Public Accounts its evidence and any other documents relating to matters of common interest; and
- (d) to meet concurrently with any other such committee for the purposes of deliberating, taking evidence, or considering draft reports.

The following were nominated Members of the Committee on 13 July 1992:

Mr Spencer Batiste Dr Jeremy Bray Mr Malcolm Bruce Mrs Anne Campbell Cheryl Gillan Mr William Powell Sir Giles Shaw Sir Trevor Skeet Dr Gavin Strang Sir Gerard Vaughan Dr Alan W Williams

Sir Giles Shaw was elected Chairman on 15 July 1992.

On 9 November 1992 Mr Malcolm Bruce was discharged and Mr Andrew Miller added to the Committee.

On 16 November 1992 Dr Gavin Strang was discharged and Dr Lynne Jones added to the Committee.

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#### FIRST REPORT

### EFFICIENCY UNIT SCRUTINY OF PUBLIC SECTOR RESEARCH ESTABLISHMENTS

The Science and Technology Committee has agreed to the following Report:

#### Introduction

- 1. In the White Paper, "Realising our Potential" published in May 1993 the Government announced that there was to be a Scrutiny of public sector research establishments "to review, sector by sector, the future status of establishments, looking in depth at privatisations, rationalisation and different options for ownership." This Efficiency Scrutiny was expected to be completed in April of this year, and to be published shortly after. Accordingly, the Committee set aside time in the early summer for an inquiry. The Report was not in fact published until July 11th 1994. We examined Sir Peter Levene, the Prime Minister's Adviser on Efficiency, and Mrs Lynda Kyle, the leader of the Scrutiny team, on July 13th. We were able to examine the Rt Hon David Hunt MP, the Chancellor of the Duchy of Lancaster, and Professor Sir William Stewart FRS, the Government Chief Scientific Adviser, on October 26th and we have received written evidence on the Efficiency Scrutiny which is published with this Report. We have also had sight of responses to the consultation sent directly to the Office of Science and Technology which have been deposited in the Record Office.
- 2. Our Report is based upon this evidence and on the knowledge gained in our previous inquiry into "The Routes through which the Science Base is Translated into Innovative and Competitive Technology." However we have not been able to examine those who submitted written evidence objecting to the conclusions of the Scrutiny Report within the consultation period set by the Government, most of which fell within the Summer Adjournment. We regret this, since our conclusions must accordingly be less robust than they would have otherwise been. We have also been unable, in the time available, to consider the recommendations relating to individual institutions, and accordingly restrict this Report to the broad issues raised by the Scrutiny Report. We recommend that in future the consultation period for any Scrutiny about which there is clear Parliamentary concern should take account of the time available for Committees of the House to take oral evidence on the subject covered.
- 3. When the Chancellor of the Duchy of Lancaster appeared before us on 26th October he said that the aim of the Scrutiny was "to ensure that ... we target in the best possible way the resources we have available." We believe no-one could object to this. We also agree that it is entirely appropriate for the Government to examine the organisation of public sector research establishments (PSREs) and to ensure that costly resources are not wasted. However we have grave reservations about the conduct and the main conclusions of the Scrutiny. In our First Report of Session 1993-94 we said:

"We see no reason why, provided it is conducted thoroughly and with due deliberation, and does not wreck Government science, the Efficiency Scrutiny should be feared, as long as the Government's responsibility for the long term preservation of a knowledge base at least at the current level is taken into account in any decisions."

<sup>&</sup>lt;sup>1</sup>Cm 2250, para 5.13.

<sup>&</sup>lt;sup>2</sup>Multi-Departmental Scrutiny of Public Sector Research Establishments, HMSO, June 1994.

<sup>&</sup>lt;sup>3</sup>Minutes of Evidence and Appendices, Volume 2.

<sup>&</sup>lt;sup>4</sup>This category includes responses which were made both to the Committee and the OST.

<sup>&</sup>lt;sup>5</sup>First Report of Session 1993-94, HC74.

<sup>&</sup>lt;sup>6</sup>Q101.

<sup>&</sup>lt;sup>7</sup>HC(1993-94)74-I para 164.

We are concerned that the Scrutiny Report does not appear to recognise the importance of this knowledge base; we hope that the Government Response will take it into account.

#### Scope and Conduct of the Scrutiny

4. Many of those responding to the Scrutiny Report, whether to us or to the OST, have made the point that the Scrutiny team's recommendations were, to a large degree, conditioned by its terms of reference and the establishments it examined. We agree.

#### The Institutions reviewed

5. As part of the preparation for the re-organisation of Government-funded science which followed the establishment of the Office of Science and Technology, the Prime Minister's Adviser on Efficiency and Effectiveness, Sir Peter Levene, and the Government Chief Scientific Adviser, Professor Sir William Stewart, prepared a "Review of Allocation, Management and Use of Government Expenditure on Science and Technology." In the section dealing with Government Research Establishments (GREs) the Review recommended that "the ownership of civil GREs which are not early candidates for privatisation should be consolidated into a small number of, or perhaps only one, Civil Research Agencies." In "Realising our Potential" the Government appeared to accept that this recommendation should be the basis for the Scrutiny. It announced:

"The Government therefore intends to undertake a scrutiny of the public sector research establishments to review, sector by sector, the future status of establishments, looking in depth at privatisation, rationalisation and different options for ownership. It will build upon reviews in progress, or which have recently been completed, as part of the regular appraisal and review process undergone by all Next Steps Agencies. It will also take account of special reviews already under way, such as those announced recently by the President of the Board of Trade." 10

- 6. At that time it was our impression that the Scrutiny would be restricted to GREs; the Levene/Stewart review had made its original recommendations about GREs and the White Paper announcement was not only contained in the chapter dealing with Science and Technology and the Civil Departments, but referred to Next Steps Agencies; that is, bodies which had a relationship to a government department, rather than a Research Council.
- 7. When the list of institutions to be covered in the Scrutiny appeared, <sup>11</sup> it included both Government Research Establishments and Research Council Institutes (RCIs). Mrs Lynda Kyle, the leader of the Scrutiny team, told us the RCIs were chosen because they had a customer relationship with Government departments and undertook work which was similar to that undertaken in the departments. <sup>12</sup> She maintained that although the establishments concerned undertook a spectrum of work "ranging from work which is very intricately involved in the policy and operational activities of Government departments, to ... very basic research" <sup>13</sup>, "there is a good proportion of work done in the centre of the spectrum, where the timing of the life-cycle is very similar in the work done in research establishments of the research council institutes and those of other Government departments." <sup>14</sup>
- 8. The work conducted in GREs and RCIs may overlap. However, many witnesses felt that the Scrutiny Report did not adequately recognise the difference in mission between them. 15

<sup>&</sup>lt;sup>8</sup>HMSO, May 1993.

<sup>&</sup>lt;sup>9</sup>Paras 1.51, 5.42.

<sup>&</sup>lt;sup>10</sup>Cm 2250, para 5.13.

<sup>&</sup>lt;sup>11</sup>Official Report, 3 March 1994, Cols. 809-811.

<sup>&</sup>lt;sup>12</sup>QQ21-22.

<sup>&</sup>lt;sup>13</sup>O21.

<sup>14</sup>Q22.

<sup>&</sup>lt;sup>15</sup>Ev pp 26, 73-4.

The inclusion of 22 Research Council Institutes in the Scrutiny radically altered its nature. RCIs are means by which the parent Research Councils fulfil their mission. <sup>16</sup> As witnesses pointed out, it is dangerous to propose reorganisation without considering those missions. <sup>17</sup> The Scrutiny Report does not do this; the main text discusses Research Institutes and GREs solely in terms of the type of research they conduct <sup>18</sup> and while Annex F gives a brief history of the PSREs in the Scrutiny, it does not relate the RCIs to the current missions of individual Research Councils.

9. There were also concerns that the Scrutiny Report did not adequately consider the distinctive tasks of GREs themselves. The University of Edinburgh drew attention to their role in informing "the evaluatory, monitoring and advisory responsibilities of the Establishments for policy development and compliance with statutory regulations" and the Institute of Physics told us that the Scrutiny Report:

"did not fully appreciate the role and contribution of the PSREs which is often distinct from that of universities and industry, although obviously requiring good linkages to both. There seemed to be little recognition of their complex relationships with industrial innovation and the fact that these are dynamic and changing with time. The role of PSREs involves an understanding of relevant basic research in their field and, where appropriate, the creation of a critical mass of R&D in relation to the perceived evolutionary path of industry, usually in an international context". <sup>20</sup>

#### Co-ordination with other studies

- 10. It is also unfortunate that the Scrutiny took place when the Research Councils had just been re-organised following "Realising our Potential". For example, since April 1994 the Natural Environment Research Council (NERC) has undertaken significant restructuring which may lead to rationalisation. The timing of the Scrutiny has not allowed full account to be taken of the changes in the Research Council system.
- 11. We are similarly concerned about the co-ordination of the Scrutiny with other changes to publicly funded science in the United Kingdom. As NERC said:

"if there was a real concern about overlaps and minimising the costs of overheads associated with the delivery of good and effective science funded from the public sector, then all establishments receiving significant public sector research funding, including university departments, units, centres etc., and executive agencies such as the Meteorological Office, should have been included.<sup>21</sup>"

12. Mrs Kyle told us there was full transparency between the Scrutiny and other reviews of Government science, such as those announced by the President of the Board of Trade.<sup>22</sup> The Chief Scientific Adviser described the Scrutiny as "the last part in the jigsaw" of concurrent reviews of government science<sup>23</sup> after the reorganisation of the Research Councils and the establishment of the Defence Research Agency. However, the Scrutiny suggested some rationalisations involving organisations that were not within its remit. We doubt whether the series of reviews to which the publicly funded science and technology base has been subjected was so clearly co-ordinated as the CSA implied.

<sup>&</sup>lt;sup>16</sup>ibid, Royal Society Commentary on the Efficiency Unit report, para 25.

<sup>17</sup> ibid.

<sup>18</sup> paras 2.13-2.19

<sup>&</sup>lt;sup>19</sup>Response to the Scrutiny Report, p 8.

<sup>&</sup>lt;sup>20</sup>Ev p 30.

<sup>&</sup>lt;sup>21</sup>Ev p. 74.

<sup>&</sup>lt;sup>22</sup>O 14.

<sup>&</sup>lt;sup>23</sup>O127.

#### The Scrutiny Team

13. It is possible to pay tribute to the application of the Scrutiny team, even while disagreeing with the conclusions that they reached.<sup>24</sup> However, it appears that once the RCIs were included the make up of the team was inappropriate. As the Adviser to the Scrutiny team, Dr Michael Elves of Glaxo, pointed out, with the exception of the team leader, Mrs Lynda Kyle, and Dr Ovenden who was seconded from Smiths Industries, it was composed of scientists from Government departments.<sup>25</sup> Such a group was not obviously qualified to judge the role of the RCIs in a wider context than that of occasional bidders for departmental research contracts. It is perhaps for this reason that, as many have complained, the Scrutiny does not seem to take account of the long term nature of much of the work conducted at research council institutes nor the extent to which some areas of science are intrinsically interdisciplinary.<sup>26</sup>

#### Time allowed for the Scrutiny

14. We agree with Dr Michael Elves that it is a matter of concern "that the scrutiny was required to be undertaken and conclusions reached within ... four months." The use of the normal Scrutiny time-scale would have been problematic even had the scope been limited to GREs; the inclusion of RCIs meant that the Scrutiny covered 50 PSREs employing over 31,000 scientists, technologists and support staff and costing over £1.35 billion a year.

#### Terms of Reference

15. The Scrutiny's terms of reference were:

"On a sector by sector basis:

—to identify those public sector research establishments where early privatisation is feasible and desirable;

—where early privatisation is not feasible or desirable, to identify the potential for rationalisation of facilities or capabilities, and recommend means of implementing such rationalisation;

—to consider whether changes to current ownership and financing arrangements for establishments would lead to more effective operation of the open market and better value for money; if so, to recommend one or more alternative models."<sup>28</sup>

The Royal Society has said that "the solution [privatisation] preceded definition and analysis of the problem" However, the Chancellor of the Duchy of Lancaster played down the importance of privatisation: "the Terms of Reference ... were to identify those establishments where [privatisation] is feasible and desirable, but where it is not then to look at the potential for rationalisation of facilities or capabilities." Given that the Scrutiny recommended privatisation or partial privatisation for only two of the establishments within its remit which were not also covered by departmental reviews, it seems that large sections of the scientific community have been subjected to further unnecessary uncertainty at a time when they were already assimilating a great deal of change.

<sup>&</sup>lt;sup>24</sup>Ev p. 30, Response to the Scrutiny Report from Dr Michael Elves,

<sup>&</sup>lt;sup>25</sup>Response to the Scrutiny Report, pp 2-3.

<sup>&</sup>lt;sup>26</sup>University of Edinburgh, Response to the Scrutiny Report, pp 2-3, Ev pp 27, 55, 74-5, 77.

<sup>&</sup>lt;sup>27</sup>Response to the Scrutiny Report.

<sup>&</sup>lt;sup>28</sup>P 1

<sup>&</sup>lt;sup>29</sup>Commentary on the Efficiency Unit Report, para 3. See also Ev p. 30.

<sup>30</sup>O137

16. We understand that there is a real difficulty in assessing the extent to which the facilities and expertise provided within one part of the Government funded research and technology system, the Research Councils, may overlap with those provided by departmentally parented bodies. While the Director General of the Research Councils (DGRC) can look across Research Council boundaries to ensure that unnecessary duplication is avoided, until recently there has been no mechanism by which a similar broad view can be taken across the whole of government funded science. However, we fear that the remit and conduct of the Scrutiny were such that it has, at best, diverted much time and energy from the PSREs' main functions and may have been profoundly and unnecessarily damaging to their morale.

#### The Report's Recommendations

- 17. The Report divides its recommendations into the following kinds:
  - those dealing with privatisation and transfer to universities;
  - -those dealing with organisational structures and alternatives to structural change;
- -supplementary rationalisations which might be implemented whatever the organisational structure for government research; and
  - —a list of specific rationalisations.

We shall consider the proposals for organisational change before turning to those dealing with privatisation and other rationalisations; as we have already explained, we do not wish to comment on proposals directed at individual establishments.

#### Structural Change

18. The Scrutiny Report suggested two types of reorganisation might be further considered:

"Model 1 the creation of four new 'market sector' oriented organisational groupings dealing with marine resources and environment; environment (non-marine); biotechnology and biological sciences; and food and agriculture. The groupings would be parented, respectively, by Scottish Office, NERC, BBSRC (Biotechnology and Biological Sciences Research Council) and MAFF.

Model 2 the creation of geographically-based groupings in Scotland and in England and Wales by bringing more establishments in Scotland into Scottish Office ownership, creating a new MAFF agency comprising most existing MAFF PSREs in England and Wales, and transferring a small number of establishments to BBSRC and NERC."<sup>31</sup>

19. Witnesses drew attention to serious practical difficulties in each of these. Model One would separate research into the marine environment from research into the terrestrial environment by transferring responsibility for marine research institutions (including the Plymouth Marine Laboratory) to the Scottish Office. It would make collaboration in cross-disciplinary areas of science more difficult, and it would prevent the Research Councils taking a strategic view of the research they needed. Objections to Model Two centred on the separation it imposed between research institutes in England and Wales and their counterparts in Scotland. NERC maintained that this "is likely to introduce new costs associated with duplicate management and co-ordination structures and may well lead to duplication of scientific effort on either side of the Border. Respondents noted that both models would

<sup>&</sup>lt;sup>31</sup>Para 5.22.

<sup>&</sup>lt;sup>32</sup>Ev p. 77, Royal Society Commentary on the Efficiency Unit Report, paras 18-20. Responses to the Scrutiny Report from the University of Edinburgh and the Royal Society of Edinburgh.

 $<sup>^{33}</sup>$ Ev p. 78, Royal Society Commentary on the Efficiency Unit Report, para 21. Response to the Scrutiny Report from the Royal Society of Edinburgh.

<sup>&</sup>lt;sup>34</sup>Ev p. 78.

introduce a new layer of management in the shape of the Chief Executives of the institutional groups they propose.<sup>35</sup> Resistance to the changes came from industry, as well as from the scientific community.<sup>36</sup>

20. It may be desirable to undertake wholesale reorganisation of Public Sector Research Establishments to deal with potential overlap and duplication but if this is the case such duplication must be quantified. The Scrutiny Report found:

"few instances of actual duplication in the sense of the same work being done for different customers. Where duplication appeared to exist it was sometimes a function of services being provided on a regional basis ... or it had emerged as a result of competition."<sup>37</sup>

It has been pointed out that in research connected with forestry, for example, it will be necessary to have laboratories doing similar work at different sites with distinct ecological characteristics.<sup>38</sup> Overlap in terms of the type of research or equipment used was identified but not dealt with in detail.<sup>39</sup> The Royal Society has said the "Review does not demonstrate the existence of real scientific overlap on a scale that would warrant the disruption of major restructuring" although we consider the comment that "overlap seems to have been interpreted in terms of availability of equipment" was a little harsh.<sup>40</sup> Dr Elves was certainly of the opinion that "within the Life Sciences sector there is duplication of function and capacities which can be interpreted as over capacity when viewed broadly across a sector.<sup>241</sup> We note that many respondents maintained that "scientific knowledge is assisted by, and is often dependent on, similar work being conducted in other laboratories.<sup>242</sup> We also note that the Government policy of allocating research contracts by competition, which we discuss in more detail in paragraphs 37 to 39 below will inevitably conflict with the desire to reduce overlap in PSREs' work.

- 21. The Chancellor of the Duchy of Lancaster himself told us "there is a suggestion of over-capacity right across. What I have not found myself is the ability to identify exactly in which particular pockets that over-capacity might exist." Not only were the team unable to produce concrete examples of overcapacity, Sir Peter Levene and Mrs Kyle were unable to quantify any savings from reorganisation.<sup>44</sup>
- 22. Whatever the arguments about sites and equipment, it must be remembered that science is conducted by people, and there is a danger that if morale is undermined such teams may disperse.<sup>45</sup> Reorganisation is also extremely expensive; it can cost £30,000 to redeploy a scientist and the cost of redundancies is far higher.<sup>46</sup> The Scrutiny Report does not attempt to cost either of the reorganisations it proposes. We consider that major re-organisation should only be undertaken when there are clearer benefits than those described in the Scrutiny Report.
- 23. If neither of the two models for restructuring were taken further the Scrutiny Report recommended the creation of two Directors of Rationalisation:

<sup>46</sup>Ev p. 59.

 $<sup>^{35}</sup>$ Responses to the Scrutiny Report from the Royal Society of Edinburgh, Royal Society, Commentary on the Efficiency Unit Report, para 17.

<sup>&</sup>lt;sup>36</sup>See Response to the Scrutiny Report from Forest Economic Advisory Services, The Apple and Pear Research Council, the Forestry Industry Committee of Great Britain.

<sup>&</sup>lt;sup>37</sup> p.111

<sup>&</sup>lt;sup>38</sup>Response to the Scrutiny Report from the Home Grown Timber Advisory Authority and Professor Banks of the University College of North Wales, see also Ev p. 56.

<sup>&</sup>lt;sup>39</sup>See also Response to the Scrutiny Report from Dr Elves.

<sup>&</sup>lt;sup>40</sup>Commentary on the Efficiency Unit Report, para 15.

<sup>&</sup>lt;sup>41</sup>Response to the Scrutiny Report, p 8.

<sup>&</sup>lt;sup>42</sup>Response to the Scrutiny Report from the Royal Society of Edinburgh. See also Response from the Committee of Vice Chancellors and Principals (CVCP) and Ev p. 56.
<sup>43</sup>O143.

<sup>&</sup>lt;sup>44</sup> QQ28, 68-70.

<sup>&</sup>lt;sup>45</sup>Ev pp 47, 86. Response to the Scrutiny Report from the Institute of Biology.

"jointly appointed by appropriate combinations of interested Departments (OST, MAFF, SOAFD, the Forestry Commission and ODA). The Directors would be charged with identifying and recommending rationalisation of capabilities and facilities within the two broad areas of (a) marine and non-marine environment (b) food, agriculture, biotechnology and biological sciences."

Some respondents supported the creation of these posts, apparently on the grounds that they "appear the least damaging" option, 43 although many saw them as merely another layer of bureaucracy. 49 The BBSRC maintained "planning and implementation of structural change are likely to prove more effective if they are internalised, rather than being the responsibility of a separate layer of senior management. \*\*\* As the Chancellor of the Duchy of Lancaster said, "uncertainty can be very debilitating"; 51 the introduction of such posts would create lengthy uncertainty at a cost, as we were told, of "perhaps £100,000 an individual. \*\*\* As the Royal Society points out, they might also undermine the role of the CSA and the DGRC. 53 We are unconvinced their appointment would be of any real benefit.

24. We do not advocate the permanent retention of the current arrangements for government research. Science moves on, and it is likely that the arrangements needed to foster it will change. However, we agree with Dr Elves that "S&T is unlike many other commodities and cannot be switched off and on to suit short term objectives" and that scientific institutions "are in effect 'living organisms' and as such can be easily and irreversibly damaged." Any successful change must take this into account. If it is impossible to identify a structure for government science which is clearly better than the current model, then the aim should be to encourage gradual evolution in response to changing priorities. As long as the value of government science is recognised, and the preservation of the science and technology base seen as a Government priority, evolution can be encouraged without being overly destabilising.

#### Other Recommendations

- 25. We now turn to the Report's other recommendations; broadly speaking, since we regard evolution as the most likely way in which progress will be made, we support those recommendations which encourage such evolution.
  - 26. We strongly support recommendation 9:

"Departments should treat privatisation decisions in a structured way. A strategic view, collectively endorsed by interested Departments, should be taken on whether the ultimate long-term goal for a particular establishment should be a move into the private sector or whether it should remain in the public sector for the foreseeable future. The policy framework in which the establishment operates should be designed accordingly." 55

Such a long term view should result in increased stability.

27. However, the Scrutiny Report limits the criteria for privatisation decisions to those connected to departmental work. As many respondents said, some of the establishments contain expertise which cannot be replicated elsewhere.<sup>56</sup> In considering privatisation

<sup>&</sup>lt;sup>47</sup>para 6.5.

<sup>&</sup>lt;sup>48</sup>Response to the Scrutiny Report from R G Pollard, Chief Forestry Officer, Isle of Man Department of Agriculture, Fisheries and Forestry. *See also* Ev pp 30, 58.

<sup>&</sup>lt;sup>49</sup>Ev. pp 27, 88.

<sup>&</sup>lt;sup>50</sup>Ev p. 27.

<sup>&</sup>lt;sup>51</sup>Q 138.

<sup>520 75</sup> 

<sup>&</sup>lt;sup>53</sup>Commentary on the Efficiency Unit Report, para 23.

<sup>&</sup>lt;sup>54</sup>Response to the Scrutiny Report.

<sup>55</sup> Paras 3.16 and 7.16.

<sup>&</sup>lt;sup>56</sup>Ev pp 75, 81, 92-3.

more should be taken into account than the categorisation of activities into "front line", "immediate support" and "second line support" suggested in recommendation 5. We consider that the Government's responsibility to safeguard the country's knowledge base should also be taken into account.

- 28. This does not imply that all Government Research Establishments should remain in public ownership, but it does mean that privatisation should be supported only if it does not lead to a reduction in the knowledge base. For this reason, we also agree with those who consider there is no point in privatising part of a successful entity, even when there are bidders for it, if to do so would jeopardise the entire organisation.<sup>57</sup>
- 29. The Scrutiny Report commented that once a decision on the future of an organisation had been taken, "PSREs which are to remain public sector organisations should have the emphasis placed on economy and limitation of non-government activities". We do not agree. The Institution of Professionals, Managers and Specialists (IPMS) gave several examples of synergy between research sponsored by the private sector and government research and regulatory activity; for example, work on heating controls undertaken for various private contractors provided background for work on related Building Regulations. Interaction between industry and GREs can benefit the company commissioning research, the GRE providing it and the policy making or regulatory parts of central government.
- 30. PSREs should be encouraged to undertake work for and with industry, provided industry pays the full cost for the research it commissions. Accordingly we support the recommendations that:
  - "all PSREs should at minimum have the flexibilities inherent in net running cost operation"

and that;

"Departments/Research Councils should set published targets ... which encourage all PSREs to use the scope available to them to increase joint ventures with industry and/or universities, and to maximise commercial revenue from technologies/products generated." 60

31. We also reiterate that the views of users, and in particular, industrial users, should be taken into account when privatisation is considered.<sup>61</sup> We note that none of the members of the construction industry who have responded to the Scrutiny Report directly has supported the partial privatisation of the Building Research Establishment (BRE). There appears to be a consensus that there is a need for an independent arbiter of standards and that the building industry is too disparate to provide the facilities for all the research it needs.<sup>62</sup> Other industries may have similar problems. In our visits to Germany and Japan we saw that other countries provided publicly funded research establishments which could work closely with industry; we trust that United Kingdom PSREs will be allowed to continue to do so.

<sup>&</sup>lt;sup>57</sup>See Ev pp 32, 77, 93.

<sup>&</sup>lt;sup>58</sup>para 7.16

<sup>&</sup>lt;sup>59</sup>Ev p. 53.

<sup>&</sup>lt;sup>60</sup>Recommendation 35, para 7.15, Recommendation 34, para, 7.14

<sup>61</sup> See HC(1993-94)74, para 162.

 $<sup>^{62}</sup> See$  Responses to the Scrutiny Report from RIBA Indemnity Research Ltd, ga construction and Confederation of Association of Specialist Engineering Contractors. See also HC(1993-94)74-III, pp 67-70.

#### Relations with Universities

- 32. The Scrutiny Report suggests that transfer of institutes to universities could be considered as a form of privatisation, although the benefits of such moves would "have less to do with the introduction of commercial disciplines and freedoms than with synergy between the organisations so merged." Some universities have already expressed an interest in certain institutes. 64
- 33. However, many of those submitting written evidence drew our attention to real practical difficulties in wholesale transfer; Sir John Kingman, the Vice Chancellor of Bristol University told us:

"Such transfer would normally be accompanied by staff reductions and other measures to increase efficiency and the university could not take responsibility for redundancy and other payments. The difference in salaries and conditions of service ... need also to be taken into account in the terms of any transfer."

Other points made were that the high turnover of graduate and post-graduate students works against the accumulation of experience. 66 There were suggestions that a university's concern to foster its own reputation might make it reluctant to collaborate with others and a number of respondents expressed concern about universities' capacity to sustain the long term research or data collection supported by some Research Council Institutes. 67 Dr Elves made a more fundamental objection:

"The nature and research objectives of the PSREs, and particularly many of the RCIs, are very different from that of most university departments. This distinction should be maintained as it represents one of the strengths of the RCIs." 68

This was echoed those who feared that universities' priorities, based on teaching and academic research, were not those of PSREs.<sup>69</sup>

- 34. These objections are not insuperable, and do not apply in all cases. Indeed, the University of Warwick saw the different perspectives of the two types of organisation as an advantage: "The University can help ensure a flow of younger research workers; the institute provides a different context within which training can be undertaken." However, there are sufficient potential drawbacks to transfer of PSREs to universities to suggest that such transfers should be arranged, as they are now, by consultation and negotiation between the organisations directly involved. There may be cases, as there have been in the past, when it is appropriate for a PSRE to be transferred to a university but it would be foolish to support such transfers solely because of the fiction that they remove activities from the public sector.
- 35. The Scrutiny Report also recommends that "PSREs should, within two years, develop effective formal links with universities where these do not exist at present." As the Report makes clear, links between institutions are already widespread. The University of Warwick told us that formal links would allow better planning and we know that some responses made directly to the OST echoed this. Formal links between PSREs and Universities should indeed be encouraged.

<sup>63</sup>Para 3.10.

<sup>&</sup>lt;sup>64</sup>See Responses to the Scrutiny Report from King's College, London and the University of Liverpool.

 $<sup>^{65}</sup>$ Ev p. 24. See also Royal Society Commentary on the Efficiency Unit Report, para 13 and CVCP response to the Scrutiny Report.

<sup>&</sup>lt;sup>66</sup>Ev pp 55, 65. Response to the Scrutiny Report from ga construction Ltd.

<sup>&</sup>lt;sup>67</sup>ibid and Ev pp 26, 75.

<sup>&</sup>lt;sup>68</sup>Response to the Scrutiny Report from Dr Elves, para 5, see also Ev p 82.

<sup>&</sup>lt;sup>69</sup>Ev pp 55, 75, 82, Responses to the Scrutiny Report from ga construction and CVCP.

<sup>&</sup>lt;sup>70</sup>Ev p. 29

<sup>&</sup>lt;sup>71</sup>Recommendation 4, para 3.12.

<sup>&</sup>lt;sup>72</sup>Ev p. 29, Responses to the Scrutiny Report from the CVCP, King's College London and de Montfort University.

36. The University of Bath has opposed the recommendation that OST should review the extent to which Higher Education Institutions are quoting for work on the same full economic cost basis as PSREs. They said "we don't see why the purchaser should be bothered if the supplier *underclaims*. This might be acceptable if the PSREs were, as the University of Bath suggested, disbanded but it is, to the best of our knowledge, the only organisation suggesting such radical changes. The Committee of Vice Chancellors and Principals drew our attention to another problem, the reluctance of many customer departments to pay "a price which reflects full economic cost."

#### Customer and Contractor

37. Many respondents were critical of the Government's emphasis on market mechanisms as a means by which research should be guided. The Institute of Biology has said:

"Continuing emphasis on competition for contracts together with increasing reliance on short-term contracts for funding (and performance-related pay) encourage second class science, as institutes and individual scientists struggle to grab whatever they can, simply in order to survive." 76

and the Biotechnology and Biological Sciences Research Council has pointed to "a potential conflict between a truly open research market and the need to maintain and develop the science and engineering base in universities and research council institutes" Given the centrality of RCIs to the Research Councils' missions we agree that they cannot be seen as part of a simple customer and contractor relationship, although we note that NERC has recently undergone re-organisation to separate the owner and customer roles. The second sec

38. As far as GREs are concerned, since the Rothschild Report the emphasis has been on the separation of customer and contractor, an emphasis which has been increased by the Next Steps Reforms. Clearly departments are best placed to judge the science and technology they require. If it is practicable, the separation of customer and contractor can provide the most efficient allocation of resources, at least in the short term. However, it is widely recognised that it takes expertise and resources to be an informed customer. There have been suggestions that the "intelligent customer" role could be met by a well qualified and informed Chief Scientist's Office; <sup>79</sup> there are no objections in principle to this, but it must be recognised that this could lead to duplication of resources within the central department and within the PSREs. The Report suggests that intelligent customer capability can be achieved through links with PSREs and exchanges of staff (recommendation 29); in principle, this may be the case. However, if competitive tendering becomes the norm for awarding government contracts PSREs may be reluctant to provide such expertise without guarantees of stability, or will at least charge for it. NERC told us:

"in an open competitive tendering situation suppliers will need to be circumspect in the level of their dealings with customers. ... unless there are clear agreements on future partnership, transfer of intellectual property between the customer and the contractor to assist the customer could impair the supplier's opportunities in winning the business if it is subsequently put out to competitive tender. NERC has a number of examples of proposals promoted by its institutes in good faith being subsequently used in such tendering exercises." 80

<sup>&</sup>lt;sup>73</sup>Recommendation 28, para 7.4

<sup>&</sup>lt;sup>74</sup>Ev p. 25.

<sup>&</sup>lt;sup>75</sup>Response to the Scrutiny Report para 11.

<sup>&</sup>lt;sup>76</sup>Response to the Scrutiny Report, p 1.

<sup>&</sup>lt;sup>77</sup>Ev p. 27. See also Ev pp 59, 85, Royal Society, Commentary on the Efficiency Unit Report.

<sup>&</sup>lt;sup>78</sup>Ev p. 81, see also Ev pp 27-8, 57.

<sup>&</sup>lt;sup>79</sup>Dr Elves's Response to the Scrutiny Report.

<sup>&</sup>lt;sup>80</sup>Ev p. 80.

This already shows a reluctance to act for government departments and a fear that to do so will endanger intellectual property.

- 39. We consider the problem is compounded by the emphasis on competitive tender as the means for awarding contracts. We would support recommendation 26—"Departments should draw up customer checklists to ensure that external competition is the preferred method of sourcing R&D/S&T work unless strategic or practical considerations clearly dictate otherwise" (our emphases) providing it were acknowledged that such external competition might frequently be inappropriate. In our First Report we observed "if the knowledge base is to be safeguarded through purchasing, factors other than the best price obtainable will have to be taken into account. Government will need to enter into the long term arrangements with its 'suppliers' that are increasingly becoming normal in industry."81 Now we would add "especially since both the maintenance and rationalisation of government science and technology capability are expensive activities."
- 40. Moreover, as the Scrutiny Report recognises, institutions are owned by departments and both parties need to be able to plan for the future. The Report contains two recommendations which address this:

"OST, given their oversight of the Open Market policy, should review with customer and owner Departments the scope for enhanced customer-side co-ordination consistent with continued emphasis on competition and market forces.<sup>82</sup>

Departments must ensure that the owner role is clearly separated from customers and properly resourced. Owner and customers should work closely together so that a long-term view is taken of departmental needs and the part to be played in meeting them by PSREs."<sup>83</sup>

We are concerned that an over-emphasis on competitive tendering could work against this emphasis on increased co-ordination to enable institutions to plan more effectively. Moreover it would, in time, be likely to lead to the very duplication of activities that the Scrutiny was established to eliminate.

- 41. For this reason we also have reservations about the recommendation that:
  - "MAFF should progressively withdraw from its commitment to limit variations in its level of funding to BBSRC, replacing it within 4 years by contractual arrangements."84

Such decisions are best made by the parties directly concerned.

42. Our views on many of the other recommendations depend on the spirit in which they are implemented. For example, the Scrutiny Report recommends:

"Whenever plans are contemplated for major (over £2 million) investments such as new buildings, Departments should treat these as 'windows of opportunity' and make the detailed funding case against a background of the potential for site rationalisation with other PSREs, whether or not in common ownership." 85

and

"The Next Steps Division of OPSS should formally include rationalisation in applying the Prior Options process to PSREs." 86

<sup>81</sup> op. cit. para 161.

<sup>82</sup> Recommendation 13, Para 6.7.

<sup>83</sup>Recommendation 32, para 7.9..

<sup>&</sup>lt;sup>84</sup>Recommendation 31, para 7.8.

<sup>85</sup> Recommendation 15, para 6.9(b).

<sup>&</sup>lt;sup>86</sup>Recommendation 16, para 6.9(c).

We have no objections to departments or Research Councils seizing such opportunities to consider rationalisation, provided the value of science and technology is acknowledged and concerns about rationalisation or cost to the customer do not become excuses for underinvestment. Similarly we are content with the recommendation<sup>87</sup> that Departments should declare themselves open to approaches from private sector firms or universities as long as it is clear that it is for the body making the approach to make a good case for such a transfer and that there is no obligation actively to seek such transfers, but we are concerned about the recommendation<sup>88</sup> that Departments and Research Councils should routinely examine the potential for transferring PSREs to universities since it implies continual re-evaluation of PSRE status.

#### Conclusion

43. The Institute of Biology has said:

"The [Scrutiny Report] refers to "substantial rationalisation of civil research establishments over the last ten years or so," and certainly research institutes have been subjected to frequent structural changes, many of them reversing the main thrust of the previous one. Whether this has can be regarded as "rational" or not it has reduced research capacity and demoralised many scientists."

Many other respondents complained that the Scrutiny was the latest in a series of reorganisations and that "what is needed above all is a period of stability." 90

44. It is, in our opinion, unfortunate that the Scrutiny Report has neglected the most obvious means of identifying overlap and encouraging change without undue disruption; the annual Forward Look and the Technology Foresight programme. The first is already in place, and the second is at an advanced stage; together they should ensure a regular look at the scientific capabilities of the entire country and an assessment of the research it needs. The OST will clearly have a role in identifying areas in which rationalisation might be possible and in ensuring that the United Kingdom has the scientific capability to carry out research on the topics identified by the Foresight programme. Rather than introducing extensive new mechanisms for rationalisation at a time when the science and technology base is undergoing radical change, we would prefer to see a period in which the OST attempted to use the new tools already available to it. It may be that the OST will continue to see a need for reorganisation, but there would then be confidence that the problems had been properly identified and that change might be implemented in a more orderly way.

<sup>87</sup>Recommendation 8, para 3.8.

<sup>88</sup>Recommendation 3, para 3.11.

<sup>&</sup>lt;sup>89</sup>Response to the Scrutiny Report.

<sup>90</sup> Horticultural Development Council, Response to the Scrutiny Report, see also responses from the Royal Society, Professor Banks of the University College of North Wales, the Apple and Pear Research Council.

### PROCEEDINGS OF THE COMMITTEE RELATING TO THE REPORT

WEDNESDAY, 16 NOVEMBER 1994

#### Members present:

Sir Giles Shaw, in the Chair

Mr Spencer Batiste Dr Jeremy Bray Mrs Anne Campbell Dr Lynne Jones Mr Andrew Miller Sir Trevor Skeet Dr Alan W Williams

The Committee deliberated.

Draft Report (Efficiency Unit Scrutiny of Public Sector Research Establishments) proposed by the Chairman, brought up and read.

Ordered, That the draft Report be read a second time, paragraph by paragraph.

Paragraph 1, read, amended and agreed to.

Paragraph 2, brought up and read as follows:

Our Report is based upon this evidence and on the knowledge gained in our previous inquiry into "The Routes through which the Science Base is Translated into Innovative and Competitive Technology." However, we have not been able to examine those who submitted written evidence objecting to the conclusions of the Scrutiny Report within the consultation period set by the Government, most of which fell within the Summer Adjournment. We regret this, since our conclusions must accordingly be less robust than they would have otherwise been. We have also been unable, in the time available, to consider the recommendations relating to individual institutions, and accordingly restrict this Report to the broad issues raised by the Scrutiny Report. We recommend that in future the consultation period for any Scrutiny about which there is clear Parliamentary concern should take account of the time available for Committees of the House to take oral evidence on the subject covered.

Amendment proposed, in line 5 to leave out from "Adjournment." to end of the paragraph and insert the words: "We regret that under these circumstances we do not feel able to produce a full Report since we have not been able to probe witnesses on the issues they raised." — (Sir Trevor Skeet.)

Question put, That the Amendment be made.

The Committee divided.

Ayes, 2

Noes, 5

Mr Spencer Batiste Sir Trevor Skeet Dr Jeremy Bray Mrs Anne Campbell Dr Lynne Jones Mr Andrew Miller Dr Alan W Williams

Paragraph agreed to.

Paragraphs 3 to 8 agreed to.

Paragraph 9 read, amended and agreed to.

Paragraphs 10 to 14 agreed to.

Paragraphs 15 and 16 read, amended and agreed to.

Paragraphs 17 to 19 read and agreed to.

Paragraph 20 read, amended and agreed to.

Paragraphs 21 to 32 agreed to.

Paragraphs 33 and 34 read, amended and agreed to.

Paragraph 35, agreed to.

Paragraph 36 read, amended and agreed to.

Paragraphs 37 to 42 agreed to.

Paragraph 43 read, amended and agreed to.

Paragraph 44 agreed to.

Resolved, That the Report, as amended, be the First Report of the Committee to the House.

Ordered, That the Chairman do make the Report to the House.

Several papers were ordered to be appended to the Minutes of Evidence.

Ordered, That the Appendices to the Minutes of Evidence taken before the Committee be reported to the House. — (The Chairman.)

Several Memoranda were ordered to be reported to the House.

[Adjourned till Wednesday 23 November at Four o'clock.

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## LIST OF MEMORANDA REPORTED TO THE HOUSE BUT NOT PRINTED

We have received copies of responses to the consultation on the Scrutiny Report, some of which were also submitted directly to us as memoranda and have been reported to the House. To save printing costs these have not been printed but copies have been placed in the House of Commons Library where they may be inspected by Members. Other copies are in the Record Office, House of Lords, and are available to the public for inspection. Requests for inspection should be addressed to the Record Office, House of Lords, London, SW1. (Tel 071-219 3074). Hours of inspection are from 9.30 am to 5.30 pm on Mondays to Fridays.

Documents from the following have been so deposited:

The University of Liverpool

Farm Animal Welfare Council (FAWC)

Save British Science

Central Region Fire Brigade

The British Grassland Society

James Finlay Bank Ltd

Dr Helen Lawton Smith, School of Geography, University of Oxford

Staff of the Proudman Oceanographic Laboratory

Forest Economic Advisory Services

De Montfort University

King's College London

Mr N T Peperell, Managing Director of RIBA Idemnity Research Ltd

GA Construction Ltd

Dr M W Elves of Glaxo Holdings plc

Home Grown Timber Advisory Committee

Institute of Biology

Isle of Man Department of Agriculture, Fisheries and Forestry

Horticultural Development Council

The Apple and Pear Research Council

The Forestry Industry Committee of Great Britain

W B Banks, Professor of Forest Sciences, University College of North Wales

University of Bristol

Edinburgh Woodland Services

Confederation of Associations of Specialist Engineering Contractors

The Royal Society of Edinburgh

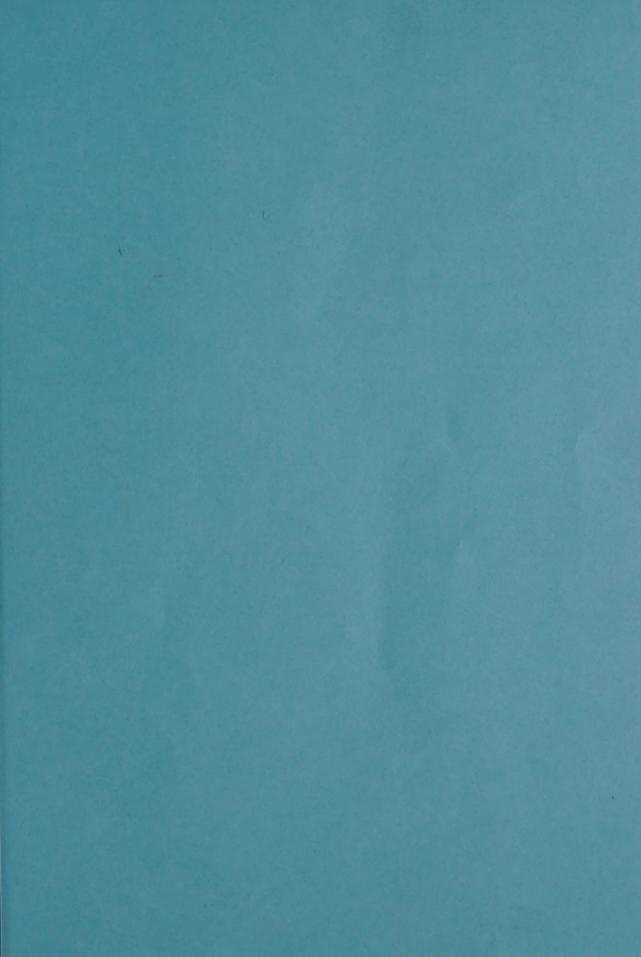
The Committee of Vice-Chancellors and Principals of the Universities of the United Kingdom

The Royal Society

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